

1 service providers both from our box as well as some  
2 of the new entrants.

3 It seems that at the 1, dot, nine  
4 gigahertz, 30 megahertz can allow you, particularly  
5 through deploying all digital and don't have to  
6 support analog subscribers that you can deploy a  
7 PCS infrastructure with similar efficiency and  
8 similar costs structure to the current 25  
9 megahertz, eight to nine hundred band that the  
10 cellular service providers have.

11 Secondly, we think 30 megahertz appears  
12 to be about the minimum size particularly if you  
13 are going to deploy services in third and  
14 fourth-tier markets, rural markets where you might  
15 find that this is the amount of spectrum that would  
16 allow you to efficiently deploy what amounts to the  
17 full service multimedia networks. Because as you  
18 move from a copper-based infrastructure to a  
19 wireless infrastructure, you would use these in  
20 rural markets to supply both voice, video and data.

21 Also in talking with a number of the  
22 folks who would like to get into plain old local

1     access service, 30 megahertz appears to be an  
2     efficient point where you could deploy Microcells  
3     off of a full-service network node structure and  
4     supply basic narrow band wire line telephony at  
5     prices that would allow you to earn a competitive  
6     investment return compared to prices that people  
7     are -- or slight premiums to what people are  
8     currently paying for wire line telephony.

9             MR. WILKINS: I really think that is a  
10    little bit approaching overkill when you talk about  
11    spectrum blocks in excess of 30 megahertz.

12            I really think that the smaller blocks  
13    are competitive. And if that weren't true you  
14    wouldn't see enhanced SMR out there, as someone  
15    mentioned earlier, one of the other panels raising  
16    capital.

17            This industry really, I think, would  
18    assume digital service -- an ubiquitous (phonetic)  
19    digital service -- be adequately served if we had  
20    20 megahertz block.

21            I think that if you wanted entities that  
22    were out there and were competing directly head to

1 head with existing cellular companies, then yes,  
2 they need 30 megahertz of spectrum.

3 If the Commission's goal is to create  
4 more cellular companies, then that's fine. The  
5 Commission can just break up the spectrum into 30  
6 megahertz blocks.

7 But if the Commission really wants  
8 differentiated service, if it wants alternatives,  
9 if it wants different entrepreneurial services  
10 addressed in the marketplace, then I think that the  
11 Commission's present separation is adequate to do  
12 that.

13 I think that there are enough 10  
14 megahertz blocks, one 20 megahertz, and the two 30s  
15 is clearly adequate. And perhaps you ought to  
16 break up the 30 megahertz and cut them to 20 so  
17 that people will more efficiently use spectrum  
18 space.

19 MR. GIPS: John.

20 MR. OXENDINE: I kind of  
21 disrespectfully -- I disagree with you, Mr. Roberts  
22 because when we look at some basic truths, if we

1 look at the amount of spectrum for each license I  
2 suppose we could take the whole 120 and give it to  
3 one person and be very efficient that way. The  
4 operation would be successful but the patient would  
5 be dead in that democracy wouldn't be served and  
6 there wouldn't be a whole lot of people involved.

7 I think that we all know that the smaller  
8 the spectrum the mores crowded it is. And the  
9 larger it is the less incumbered.

10 But I think that if we moved forward and  
11 look at something like three 20s, for example, that  
12 is more equal. You get the cellular people to  
13 play. You get designated entities to play. You  
14 get some joint venturing going there. You get some  
15 strategic alliances going.

16 As it stands at this point in time the  
17 30, the 20s and 10s, in my thinking you are going  
18 to have the big guys are going to win because -- I  
19 don't mean to be specific but when the Post winds  
20 up getting Washington and Baltimore it is very easy  
21 to build there and not have to worry about the  
22 incumbents, the railroads, and the other microwave

1       users.

2                   But when the little guys come who have  
3       the 20s and 10s, they got the incumbents to deal  
4       with. You are right. They will never be able to  
5       do anything. So I think we need to have a  
6       compromise here. And I think that the way it  
7       stands there is enough spectrum -- if I had my  
8       choice I would have three 20s and get everybody to  
9       work together.

10                   When you have 30s, and 20s, and 10s, the  
11       big folks get in there right away because we know  
12       that this is a capital intensive business, and  
13       those who have the money are going to win.

14                   If we want to allow for the others, we  
15       are going to have to make some exceptions.

16                   MR. GIPS: Did you want to --

17                   MR. HOUSTON: Well, I really do not have  
18       a specific position on this. I think one of the  
19       things that we ought to bear in mind is that from a  
20       financing standpoint the degree of risk that you  
21       perceive in a venture will influence your  
22       behavior.

1                   And to the extent that you have a  
2   spectrum size that doesn't provide for growth in  
3   terms of the services that a licensee can provide  
4   over time or they are constrained by what they can  
5   do in terms of the service offering and so forth, I  
6   think what that does is to limit their future  
7   access to capital.

8                   And so as the decision process takes I  
9   think the decision must be taken into the context  
10  of not only what service can be provided today  
11  based on what we know, but what they might be able  
12  to do in the future. That is really my comment on  
13  that.

14                   UNIDENTIFIED SPEAKER: May I ask the  
15  panel a question.

16                   MR. GIPS: Yes.

17                   UNIDENTIFIED SPEAKER: Do you think that  
18  20 or 30 megahertz wide licenses will work just  
19  fine if you have to share with incumbents. And if  
20  they don't work just fine if you have to share with  
21  incumbents, what does say the five year stretch out  
22  before you can move public safety entities, what

1       does that imply to -- for time to market and  
2       therefore your competitive position.

3               MR. OXENDINE: We know that the  
4       incumbents have three-year holding periods. We  
5       know Pepco can keep its license the next three  
6       years no matter who wins. I'm just suggesting that  
7       the big folks are smart enough -- they can put  
8       together strategic alliances and joint ventures  
9       with some regulatory support where you can have 40s  
10      or 30s, or 50s, or whatever you want. But when you  
11      strictly you have 30s, 20s, and 10s whoever is  
12      first there is going to win and not have a need to  
13      worry.

14             If I have a 30, and I have the State of  
15      California and part of Nevada, I don't need to work  
16      with anybody who has got -- you know, just Los  
17      Angeles or Sacramento.

18             But if I only have one part and you have  
19      got the other part we have to work. And guess  
20      what, we will work in the same time frame. So this  
21      argument that you make that unfortunately if you've  
22      got a whole lot of players it is going to take

1 forever and the cellular people are going to be  
2 there forever -- well, the cellular people are  
3 limited too by regulation.

4 I'm suggesting that we open it up so  
5 everybody can play. And I don't hear that from  
6 your side of the table.

7 MR. GIPS: Does Mark or Paul want to  
8 respond to that?

9 MR. ROBERTS: John, I guess I would use  
10 this as an example, when we are trying to raise  
11 equity capital for a new PCS entrant, the first  
12 question that any potential investor is going to  
13 ask is how is your cost structure and what is your  
14 marketing strategy? How are you going to compete  
15 against the incumbent cellular service provider who  
16 is in every case going to aggressively attempt to  
17 preempt both your price points and your service  
18 offerings.

19 And if you have to go through a period of  
20 after market aggregation as one of the earlier  
21 panels mentioned, we've had after market  
22 aggregation for nearly a decade now in cellular.



1 We still don't have a seamless nationwide network.

2 It is going to be very difficult for me  
3 to raise capital for someone who can't conclusively  
4 answer those questions. And the capital they do  
5 raise is going to be very expensive versus the  
6 incumbent service providers, who for example the  
7 incumbent cellular operators who are also going to  
8 be making these same sorts of alliances, and they  
9 are going to have very low costs of capital.

10 As we are seeing currently on the wire  
11 line telecommunications side, cost of capital is a  
12 strategic competitive issue here.

13 MR. OXENDINE: You make a good point  
14 except that it is based on the assumption of  
15 exclusivity. And I'm suggesting to you that  
16 perhaps we are talking about the cellulars and the  
17 other coming together in strategic alliance. You  
18 have not addressed that issue at all.

19 I mean, you are suggesting that it very  
20 competitive environment and that it is either or,  
21 one or the other.

22 If it is all inclusive, if we have some

1 regulatory movement on the part of the FCC it can  
2 include all the players. Is that not a  
3 possibility.

4 MR. ROBERTS: I think it is very possible  
5 that you can include all the players if you are  
6 specifically addressing designated entity and small  
7 businesses, new emerging growth businesses or you  
8 know other designated entities.

9 I think there are a number of ways where  
10 they have the opportunity to leverage off of a  
11 dominant service provider. But I firmly -- at  
12 least at our firm -- we fairly -- firmly believe  
13 that the dominant competitors of PCS are going to  
14 be large, very well-established sophisticated  
15 communications companies who are -- and the  
16 environment that we think would be proper would be  
17 for the FCC to create an environment where you have  
18 a lot of competition.

19 I don't think that just legislating  
20 alliances or regulating alliances will result in  
21 the sort of service proliferation and the prices  
22 falling to the point that consumers will be

1 benefited.

2 MR. GIPS: Commissioner Barrett, did you  
3 have a question?

4 MR. BARRETT: Yes. Then I assume,  
5 Mr. Roberts, that you have already assumed there  
6 are no market scenarios or structures under which  
7 you would see investments being right for anyone  
8 who is not what you call large? Large I accept,  
9 but large and necessarily sophisticated I don't  
10 accept. Then you have automatically turned off the  
11 ability for anyone who is a new entrant who happens  
12 to be sophisticated and has the knowledge of being  
13 involved?

14 MR. ROBERTS: No, we actually are  
15 actively involved in raising large amounts of  
16 capital for new entrants into what I would call PCS  
17 services.

18 MR. BARRETT: Are they large and quote  
19 sophisticated?

20 MR. ROBERTS: They are sophisticated and  
21 they are actively trying to become large through  
22 joint ventures and alliances but it has been very

1 expensive capital for them had and trying to back  
2 to raise thus far and they have had the luxury so  
3 far of not having had to compete head to head with  
4 the incumbent cellular service provider.

5 MR. BARRETT: If Mr. Houston happened to  
6 leave AT&T and take some of Herb Wilkins, you know,  
7 he can afford to underwrite all of this if he wants  
8 to. If I had Herb Wilkins' money.

9 Would he be determined -- he certainly  
10 would not be the determined large, but a new  
11 entrant. Would he be considered sophisticated from  
12 an academic standpoint and experience standpoint to  
13 be able to do the business.

14 MR. ROBERTS: When we talk about  
15 sophisticated we are mainly talking --

16 MR. BARRETT: I know what you're talking  
17 about but I just want to make sure that we are  
18 talking about the academic and intellectual  
19 sophistication to be able to do certain things such  
20 as switch and understand the markets and understand  
21 the demand process. And clearly Mr. Houston would  
22 understand all of that. He may have not have the

1 money that Mr. Wilkins has, but he certainly has  
2 along with the two of them together could do  
3 certain things and bring a certain level of  
4 sophistication to the marketplace notwithstanding  
5 the fact they would be new entrants.

6               Would you suggest that there is no place  
7 for them.

8               MR. ROBERTS: No. In fact, just the  
9 opposite. We would suggest that there are a lot of  
10 opportunities for them. As I said before, we are  
11 actively working with a number of just those sorts  
12 of companies.

13              In fact, just in the last six months  
14 alone we have raised about \$400 million dollars for  
15 entities that fit the profile that you just  
16 mentioned.

17              The difference would be the -- on the  
18 experienced management. For example, you mentioned  
19 switching. We would probably look to someone to  
20 provide some sort of vertically integrated  
21 service. It is not clear to us that Mr. Houston  
22 would be able to come to us and raise money to bid

1 for the spectrum.

2 He probably after winning the spectrum  
3 through having used someone else's --

4 MR. BARRETT: Mr. Houston is just an  
5 example.

6 MR. ROBERTS: Yes, I'm using this as a  
7 hypothetical that after winning the license and  
8 having a business plan that we felt could be  
9 executed effectively would have enormous  
10 opportunities to raise capital in the markets.

11 The difficulty would be for him to come  
12 to myself or any other -- Salomon Brothers --  
13 because then we are in turn going to got to Paul  
14 and try to convince Paul to put a hundred million  
15 dollars into Mr. Houston's company.

16 And the kind of questions you heard from  
17 Paul today are the typical questions that you would  
18 get from any portfolio manager on Wall Street.

19 MR. BARRETT: You have answered my  
20 question.

21 Either to you, Paul, Nancy, or whomever,  
22 what kind of market structure would the -- if you

1 look at the size of the markets and the number of  
2 competitors, what kind of market structure would  
3 the financial community consider most viable, the  
4 MTAs, the BTAs, large blocks of spectrums or small  
5 blocks? Let me tell you the reason I ask the  
6 question.

7               Why don't you answer that and first let  
8 me tell you why I ask the question. And I will  
9 tell you that first since Nancy is looking up at  
10 the sky.

11               It was my position, Nancy, that during  
12 the process when we voted before when we had two  
13 30s and the four 10s and the 20, that if I were  
14 in -- and I happened to mention Salomon Brothers by  
15 the way. If I were there and I had someone else's  
16 money to invest I would look at the two 30s and I  
17 would encourage someone to aggregate the three of  
18 the 10s.

19               And I would waive the ten standing alone  
20 and the 20 goodbye and say I wish you well, but let  
21 me talk to these people with the three 10s that  
22 they have aggregated. And that is the reason that

1 I ask you what kind of market structure and  
2 scenarios that you see that would be most viable.

3 Would you finance the stand alone 10 and  
4 the 20 as presently constituted.

5 MS. PERETSMAN: An independent stand  
6 alone?

7 MR. BARRETT: Mmm-hmm.

8 MS. PERETSMAN: Doubtful. Doubtful. It  
9 would depend on whether or not it was affiliated  
10 with somebody who was already in the market and/or  
11 was affiliated with somebody who was providing  
12 service in that market -- or providing that kind of  
13 service in another region so it brought some  
14 expertise.

15 To answer your question I think there's  
16 also -- it is difficult to answer MTAs, BTAs as a  
17 general rule because one of the principles that we  
18 have learned across the board is it depends  
19 dramatically on a market size. You know, the top  
20 10 markets are going to accommodate obviously a lot  
21 more competition than market 25 and 50.

22 I mean, you can look at the broadcasting



1 industry for models to that point. So I think that  
2 our level of comfort of participants is very much a  
3 function of what the market size is.

4 MR. BARRETT: Can you describe a scenario  
5 under which you think -- and I'm sorry. I didn't  
6 know whether Paul, you or Mark wanted to respond to  
7 that initial to that...

8 MR. RISSMAN: Sure. I would wait for a  
9 10 or 20 licensee to aggregate into a larger block  
10 before they came to us for equity financing on your  
11 first point. Second question, as far as MTAs go,  
12 MTAs don't really bother me too much. There.

13 There will be a market opportunity for a  
14 lot of people who aren't really interested in using  
15 PCS beyond their region. In fact you could  
16 probably claim that the people who are using -- who  
17 want to use the phone beyond their region have  
18 already signed up as cellular customers.

19 So the great mass that are left are  
20 probably more regional in their interest. BTAs I  
21 think however are a little bit too narrow. And I  
22 would want to see BTAs aggregated into an MTA

1 level.

2 If somebody comes to me with a BTA  
3 license they would not be financeable from point of  
4 view.

5 MR. BARRETT: If they were aggregated in  
6 three 30s they would be?

7 MR. RISSMAN: Three 10s on a BTA.

8 MR. BARRETT: Three 10s. I'm sorry,  
9 yes. Three 10s.

10 MR. RISSMAN: I would not find any BTA  
11 license attractive whatsoever because -- and that  
12 is because of the confusion regarding technologies  
13 that are going to be used at this time.

14 MR. BARRETT: Let me ask you a question.  
15 Can you think of any scenario under which if a new  
16 entrant -- whatever a new entrant is -- has  
17 those -- either those singularly or the ability to  
18 aggregate under which anyone on the street would  
19 consider financing them in the BTAs.

20 MR. RISSMAN: Only post aggregation.

21 MR. BARRETT: Okay. That would be after  
22 one of the big players with deep pockets had gotten

1     what they wanted; am I correct and aggregate with  
2     them?

3                 MR. RISSMAN: We could see -- any entity  
4     that wants to provide PCS I would want to see have  
5     deep pockets.

6                 MR. BARRETT: Would your assessment be  
7     based on merely being configured as BTAs? Would  
8     it be based on the market potential that one has to  
9     serve? Would you have that feeling if there was a  
10    great demand in an area and there was a great area  
11    in which a BTA would serve, would you still take  
12    the same position with who you would be willing to  
13    finance?

14                MR. RISSMAN: Well, the reason I say that  
15    is that suppose you have gotten aggregated three  
16    10s into a BTA. You decide to offer GSM based PCS  
17    and all of the BTAs around you are offering CDMA  
18    based PCS. Nobody would be able to use their phone  
19    outside of your little area. You would not have a  
20    viable business plan.

21                MR. BARRETT: Anyone else want to --  
22    Mr. Wilkins or Mr. Houston do you share his

1 feelings?

2 MR. HOUSTON: Basically from a  
3 manufacturer's standpoint I take a position on  
4 that.

5 MR. BARRETT: You do from a  
6 manufacturer's standpoint?

7 MR. HOUSTON: I do take position on that  
8 really.

9 MR. BARRETT: Okay. Herb?  
10 Mr. Oxendine?

11 MR. WILKINS: No. No, I don't share his  
12 position. I think that the extent that you elect  
13 what is perceived now as the technology in the  
14 marketplace drives how we structure the PCS/PCN  
15 industry we lose an opportunity.

16 This is an industry that is going to be  
17 around for quite a long time. To structure it now  
18 so that it merely rides on the basis of what the  
19 technology exists, ignores the fact that there are  
20 probably entrepreneurs right in this room who have  
21 ideas who would allow the development of the  
22 spectrum in such a way with different technology to

1     serve different market interests.

2                 One presumes when you take the position  
3     of Wall Street that the service that the spectrum  
4     will be used solely to develop additional cellular  
5     systems. That is not what this will be used for.  
6     There will be other types of services developed  
7     from this technology that is not pure cellular.

8                 And that we have to get away from. If  
9     the Commission goes the way of the Wall Street we  
10    will have pure cellular systems competing head to  
11    head on the basis of price, solely on the basis of  
12    price without anybody making any money and without  
13    the country having the kind of service that we  
14    would all like to see it have.

15                But if the Commission looked at smaller  
16    aggregation, smaller licenses and small block  
17    spectrum, I think the Commission will be surprised  
18    at the huge amount of new and novel uses that  
19    people can come up with to use a spectrum. And I'm  
20    certain they will. That is what venture  
21    capitalists look for.

22                MR. BARRETT: Let me just ask a real

1     quick question because Mr. Wilkins talks about the  
2     Wall Street perspective. I assume Mark, Paul, and  
3     Nancy, neither of your responses are based on any  
4     technical aspects of difficulties of the small ever  
5     configurations, are they? Okay.

6                   UNIDENTIFIED SPEAKER: No.

7                   MR. BARRETT: Did you want to respond to  
8     that initial question, Mr. Oxendine?

9                   MR. OXENDINE: My only concern was that I  
10    think the FCC has already talked about ordering two  
11    large spectrum blocks and five smaller ones because  
12    they were considering the entire country.

13                   I don't know what you would do when you  
14    look at Lexington, Kentucky with 850,000 people and  
15    probably a bill might be anywhere between eight to  
16    \$13 million. What do you do with those kind of  
17    communities?

18                   MR. BARRETT: I wanted you to respond to  
19    my question. I don't want you to get into a debate  
20    with them.

21                   Let me just go on to do something else.  
22    And I want to be clear about this, neither --

1     Nancy, neither your, Mark's or Paul's response are  
2     based on any technical difficulties that you  
3     understand with the small configurations but rather  
4     that you are looking at it purely from the  
5     perspective of an investor being able to have a  
6     reasonable opportunity to -- for the investment to  
7     be safe; am I correct.

8                 MR. RISSMAN:   When you say technical do  
9     you mean technological?

10                MR. BARRETT:   Yes, that is what I mean?  
11     Are any of your reasonings based on the fact that  
12     there are some technical difficulties?   You  
13     mentioned some in terms of what one would be able  
14     to do.   But I just want to know if Nancy and Mark's  
15     response would be based on anything above and  
16     beyond the financial aspect which is to get as much  
17     profit and to make sure that one's investment is  
18     relatively sound based on either size or alleged  
19     demand or potential demand.

20                MR. ROBERTS:   I would qualify that  
21     slightly.   Our view of PCS is slightly predicated  
22     on technology from two standpoints.   Currently

1     there are note efficient technologies, digital  
2     technologies, that would allow you to move from  
3     analog to TDMA to CDMA to frequency hopping or  
4     whatever else anyone would happen to come up with  
5     that are commercially viable within the time frame  
6     that we think you need to deploy a PCS network.

7             Also the phones that currently can -- I  
8     believe the term they use is the dual frequency  
9     phone that would move from one dot nine to two  
10    gigahertz are not realistically priced to be used.

11            So our view as far as the contiguous  
12    spectrum blocks is somewhat predicated on what  
13    technologies we see in the pipeline and how long we  
14    think they will be before they are ready for  
15    commercial deployment.

16            MR. BARRETT:  Nancy, did you want to  
17    respond to that?

18            MS. PERETSMAN:  We are presuming a level  
19    of viability.  And with that presumption we are  
20    talking about economic models.

21            MR. BARRETT:  Let's assume that one of  
22    the small configurations would have some level of



1 economic viability and would not have just for the  
2 sake of the conversation any technical difficulties  
3 notwithstanding what Mark is suggesting -- and I  
4 think he is right to some extent.

5           Would you still even with the economic --  
6 with the technical aspects being relatively clear  
7 or positive rather and there being a market and  
8 being relatively viable in terms of size and  
9 promise of demand, would you still shy away from  
10 financing?

11           MS. PERETSMAN: No, but I guess we are  
12 starting to run into a bit of a catch 22 here. It  
13 is really the view that the smaller -- let me put  
14 it this way, the smaller the spectrum allocation  
15 the presumption is more competition. The more  
16 competition -- if you introduce that on the level  
17 that it already exists we start to get to -- there  
18 is an amount of competition that ends up being very  
19 constructive and then afterwards you fall off a  
20 cliff.

21           I think what we are all concerned about  
22 is where that cliff is.